

ABSTRACT

A sickle knife system includes two reciprocating sickles each cooperating the same fixed knife guards and each extending across the full width of the cutter bar. The guards have slots approximately twice the height of the guard of a conventional single sickle arrangement so that the two sickles can be run one on top of the other inside the guards. The width of the sickle blades at the rear edge is similar to that of the guard near the rear of its cutting edge. The blades of the top sickle are sharpened to cut against the top surface of the slot and the blades of the bottom sickle are sharpened to cut against the bottom surface of the slot. The two sickles are run out of phase, preferably about 90 degrees, so that as a result, when one sickle is near the end of its stroke within the guard where it decelerates, stops, then accelerates in the opposite direction, the other sickle is starting its cut against the side surface of the next guard.